

Work Order ID 131994

Tuesday, April 21, 2015 1:59:32 PM

131994

Page 1

Item ID: D130-700-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bearpaw
 Start Date: 5/24/15 Start Qty: 1.00 ***1*** 2 Cust Item ID:
 Required Date: 6/01/15 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 15-04-23 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3167	Rev A1								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork		Photocopy bluefile and create labels per PPP D130-700-011CHG001							
160	Pick Kit	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC4- 100% Inspect kits for completeness	0.00							
170									
QC	Memo	0.00							
Quality Control									

MLJ 15-07-30

2 JUL 21 2015 DAS 9 9-89

2X DAS 27 9-89 JUN 30 2015



2 15-07-21

DAS 9 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Work Order ID 131994

Tuesday, April 21, 2015 1:59:32 PM

131994

Page 2

Item ID: D130-700-011

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bearpaw

Stop

NS2

Start Date: 5/24/15 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/01/15 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

180

Packaging

Packaging

0.00

0.00

Memo

Identify and pack for shipping as per PPP D130-700-011 Location: 12

D46
06
2-09

2

JUL 21 2015

190

190

QC

Quality Control

QC21 - Final Inspection - Work Order Release

0.00

0.00

Memo

ML5

JUL 21 2015

SH
15/7/21

ML5

JUL 21 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Picklist Print

Tuesday, April 21, 2015 1:59:31 PM

Page 1

Work Order ID: 131994

131994

Parent Item: D130-700-011

D130-700-011

Parent Item Name: Bearpaw

Start Date: 5/24/15

Required Date: 6/01/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP RevA: New issue DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN4-12A		Purchased	No			170	Each	249.0000	4	8			
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AN4-12A
Bolt

**

DAS
27
9-89

DAS
6
9-89

DAS
9
9-89

Location

Loc Qty

Loc Code

FG	10	
120423	10	
ST344	239	
M131803	1	
m131957	238	

AN4-15A		Purchased	No			170	Each	214.0000	8	16			
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AN4-15A
Bolt

**

DAS
27
9-89

DAS
6
9-89

DAS
9
9-89

Location

Loc Qty

Loc Code

GA	38	
120449	38	
ST325A	176	
m130358	8	
m131320	68	
m131957	100	

m132317

6

D2182B060		Manufactured	No			170	Each	32.0000	4	8			
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D2182B060
Clamp Cushion Black 6.0 "Long

**

DAS
27
9-89
JUN 30 2015

DAS
6
9-89

DAS
9
9-89

Location

Loc Qty

Loc Code

FG	15	
93429	15	
PKG016	17	
111120	17	

B130861

8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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OTHER :																																																																				

Picklist Print

Tuesday, April 21, 2015 1:59:32 PM

Page 2

Work Order ID: 131994

131994

Parent Item: D130-700-011

D130-700-011

Parent Item Name: Bearpaw

Start Date: 5/24/15

Required Date: 6/01/15

Start Qty: 1.00

Required Qty: 1.00

D2274

Manufactured No

170

Each

697.0000

12

D2274

Radius Block

**

DAS
27
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

FG

12

86855

12

ST006

550

127579

530

129934

20

ST012a

135

131031

135

D2519

Manufactured No

170

Each

33.0000

4

D2519

Clamp

**

DAS
27
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

ST542

33

101510

8

110683

3

129515

20

99606

2

D2529

Manufactured No

170

Each

266.0000

12

D2529

Washer

**

DAS
27
9-89

JUN 30 2015

DAS
6
9-89

Location

Loc Qty

Loc Code

ST008

266

128950

266

Tuesday, April 21, 2015 1:59:32 PM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Tuesday, April 21, 2015 1:59:32 PM

Page 3

Work Order ID: 131994

131994

Parent Item: D130-700-011

D130-700-011

Parent Item Name: Bearpaw

Start Date: 5/24/15

Required Date: 6/01/15

Start Qty: 1.00

Required Qty: 1.00

D3167-1 Manufactured No

Each 2.0000 2 4

DAS
27
9-89



D3167-1

Bearpaw
DAS
9
9-89

Location

Loc Qty

Loc Code

ST470A

2

B133772

4

110296

1

43828

1

8

D3171-1 Manufactured No

170 Each 4.0000 4

**

DAS
27
9-89



D3171-1

Angle Bracket

Location

Loc Qty

Loc Code

ST023

4

B133204
B134016

3
5
24

130078

4

MS21042L4 Purchased No

170 Each 1,277.000 12

**

DAS
27
9-89



MS21042L4

Locknut

Location

Loc Qty

Loc Code

FP001

42

m124231

42

GA

574

m127813

574

ST260a

118

m130799

56

m131803

62

ST305

543

426

426

m128300

8

m130922

97

m131618

12

m123262

24

Tuesday, April 21, 2015 1:59:32 PM

Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

Tuesday, April 21, 2015 1:59:32 PM

Page 4

Work Order ID: 131994

131994

Parent Item: D130-700-011

D130-700-011

Parent Item Name: Bearpaw

Start Date: 5/24/15

Required Date: 6/01/15

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0463J

Purchased

No

170

Each

5,164.000

12

24

NAS1149D0463J 1

**

DAS

27

DAS

6

WASHER

JUN 3 0 2015

6-89

DAS

9

9-89

Location

Loc Qty

Loc Code

GA

41

M129390

41

ST269

5123

M129682

86

M130799

403

M132035

4634

m132317

24

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

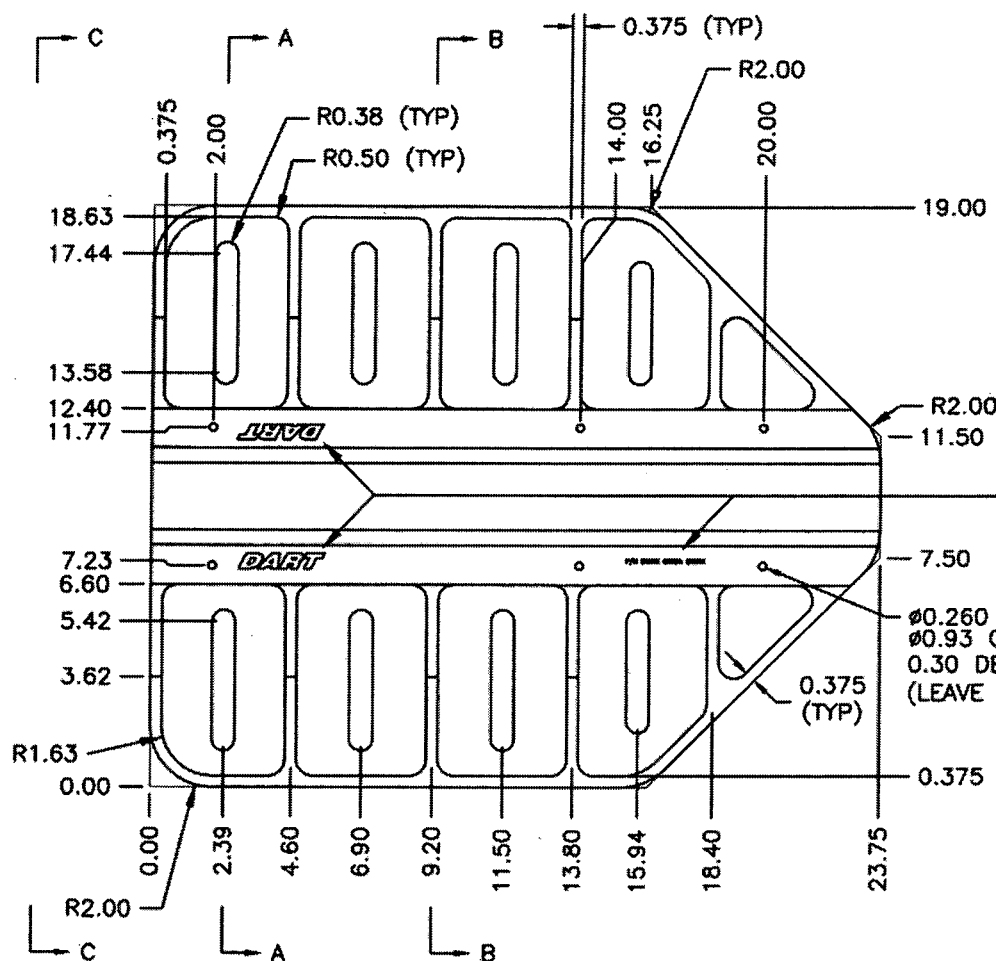


DESIGN	DRAWN BY	DART AEROSPACE LTD		
✓	✓	HAWKESBURY, ONTARIO, CANADA		
CHECKED	APPROVED	DRAWING NO.	REV. A	
✓	✓	D3167	SHEET 1 OF 2	
DATE		TITLE	SCALE	
02.10.08		BEARPAW	1:6	
A	02.10.08	NEW ISSUE		
A1	02.12.17	5.80 WAS 5.50		

RELEASED
02.10.25-47

ENGRAVE LOGO TO MAX
DEPTH OF 0.012. ENGRAVE
PART AND BATCH NUMBERS
TO MAX DEPTH OF 0.010.
(TYPICAL LOCATION AS
ILLUSTRATED)

TOP COPY
RETURN TO
DRAWING
UNCONTROLLED COPY
SECRET TO ELEMENT
WITH NO PRICE
NO ORDER
131994-ML5
15-04-23



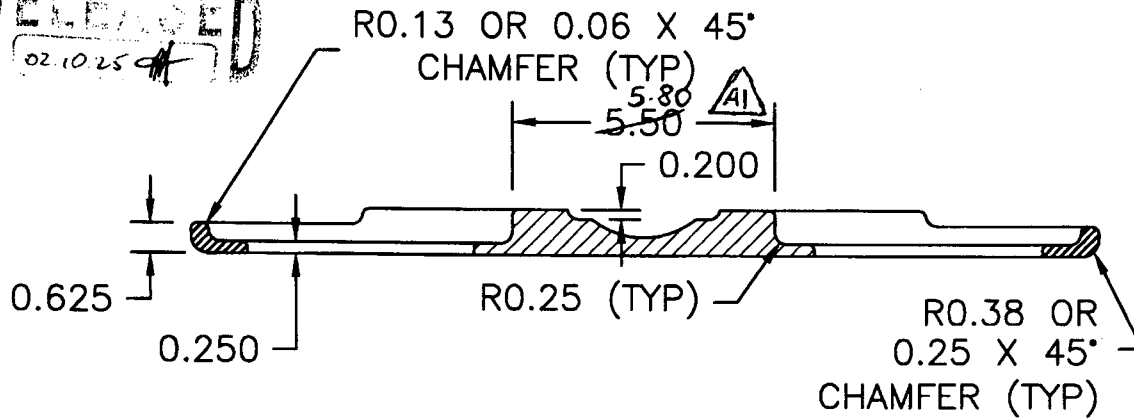
D3167-1

MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689
1.00 THICK (MACHINE TO 0.950)
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

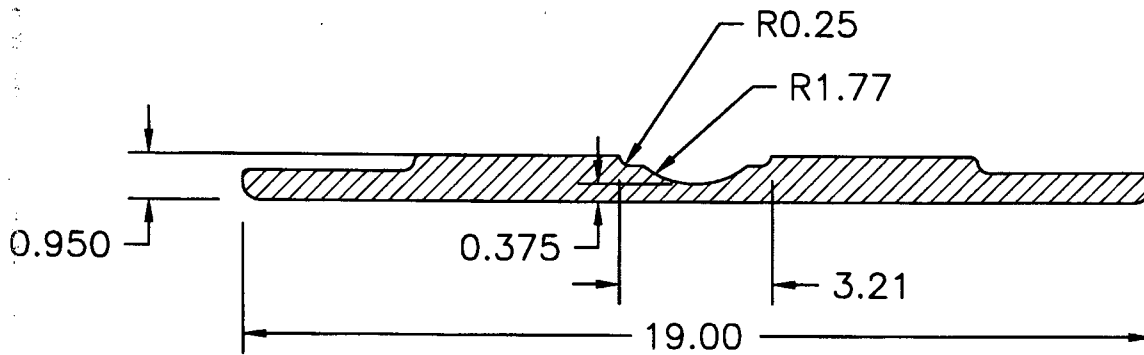


DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3167	REV. A SHEET 2 OF 2
DATE 02.10.08		TITLE BEARPAW	SCALE 1:4

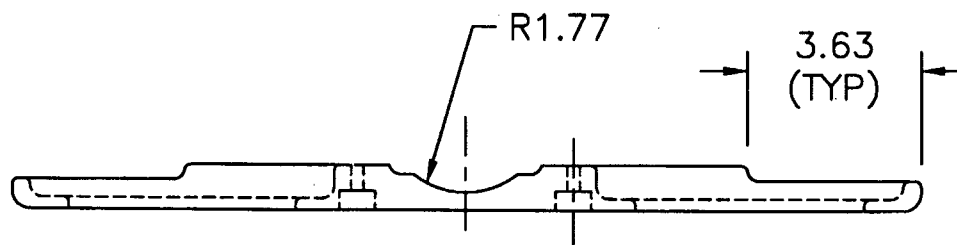
RELEASED
02.10.25



SECTION A-A



SECTION B-B



SECTION C-C

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5 PARTS LIST

Qty -011	Qty -021	Part Number	Description
X		D130-700-011	BEARPAW INSTALLATION
	X	D130-700-021	WEARPLATE KIT
4		D2182B060	Rubber Cushion
12		D2274	Radius Block
12		D2529	Washer
4		D2519	Clamp
2		D3167-1	Bearpaw
4		D3171-1	Angle
	2	D3862-041	Wearplate
4	4	AN4-12A	Bolt
8	8	AN4-15A	Bolt
12	12	NAS1149D0463J	Washer
12	12	MS21042L4	Nut (or MS21042-4)